

All Agency Project Request

2011 - 2013 Biennium

<u>Agency</u>	<u>Institution</u>	<u>Building No.</u>	<u>Building Name</u>
University of Wisconsin	Madison	285-0A-9950	Multi-Building
<u>Project No.</u>	13C11	<u>Project Title</u>	Multi-Bldg Elevator Renv/Repl (Comp Sci/Enzyme/Mem Library/Primate Lab)

Project Intent

This project provides pre-design and design services to renovate elevators in Computer Sciences and Statistics, Enzyme Institute, Memorial Library, and Primate Lab to improve reliability, energy efficiency, fire fighter service and ADA accessibility.

Project Description

COMPUTER SCIENCES AND STATISTICS (285-0A-0155): Project work includes replacing all components (controls, cab, car and hall doors, car door operators, and complete hydraulic systems including hydraulic cylinders) of one 4-stop and one 5-stop hydraulic passenger elevators (State IDs 503008, 504096). New soft starts and automatic elevator fire recall will be installed. The obsolete elevator control system will be replaced with microprocessor controllers to improve energy efficiency and traffic management.

ENZYME (285-0A-0479): Project work includes replacing one 3-stop traction passenger elevator (State ID 501589) components (car, traction machine, controller, the cab, car door sills, all doors, car operating panels and all safety related equipment) and one 6-stop hydraulic passenger elevator (State ID 504153) components (control, cab, doors, door operator, and complete hydraulic system including hydraulic cylinder). Fire fighter service operation will be provided including all fire alarm sensors, and fire alarm control panel interfaces.

MEMORIAL LIBRARY (285-0A-0015): Project work includes replacing one 17-stop traction elevator (State ID 508366) components (traction machine, cab, all safety related equipment, all car and hoist way doors, door operating equipment, car door sills and car operating panels). The condition of the cab, safety devices and the machine will be assessed and equipment will be replaced as needed. Project work also includes replacing one 14-stop traction passenger elevator (State ID 504874) components (controller, traction machine and motor, door operator, interlocks, door track, related hardware, and the car operating push button panel and signal devices). The DC motor generator will be replaced with AC motors with variable frequency drive (VFD) and a rope brake will be installed. The obsolete elevator control system will be replaced with microprocessor controllers to improve energy efficiency and traffic management.

PRIMATE LAB (285-0A-0527): Project work includes replacing one 4-stop hydraulic freight elevator (State ID 502205) components (power unit, complete hydraulic system including hydraulic jack, cab, controller, car hall stations, sling, platform, guides, and car and hall doors). Automatic side slide door will be installed. Project also includes replacing two dumbwaiters (State IDs 511335, 511336) components (controller, machine, doors, door tracks, cab, sling, and counter weights). Rails will be assessed and replaced as needed. New controls will be relocating to an accessible area for service and safety. Minor remodeling of the top floor will likely be required to locate new controls.

COMMON SCOPE: Prior to renovation or replacement work, modernization surveys must be performed by an elevator design professional. The elevator design professional also needs to be engaged throughout the project to evaluate specifications, determine specific compliance, and consult on installation issues. Elevator door operation will be modified to meet ADA requirements where appropriate. Fire alarm systems will be upgraded to satisfy current fire safety and elevator codes. Single bottom hydraulic jack cylinders will be replaced by double bottom cylinders to meet current code. Heating, cooling, and ventilation improvements to the equipment rooms will be implemented as needed to satisfy equipment warranties. Each elevator in this project will be connected to the building automation system for elevator fault reporting. Each elevator will be capable of sending a fault signal to building managers and the campus electric shop.

Project Justification

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The elevators and associated equipment range in age from 21 to 60 years old and replacement is needed. The equipment is obsolete, in poor condition, and requires constant maintenance. Attempts to improve reliability by replacing parts have not been successful. The existing DC motor generator machines produce carbon dirt and waste energy. Modern microprocessor controls coupled with new AC elevator machines run clean and are energy efficient. Adequate machine room temperature control is lacking. Fire fighter service is limited in most buildings. In most elevators, door operation does not meet ADA requirements. This project is needed to ensure reliable service to thousands of people that use these elevators on a daily basis.

A/E Consultant Requirements

☒ A/E Selection Required?

Consultants should have specific expertise and experience in the design and coordination of elevator modernization and equipment replacement as part of a design team. Work includes site surveys, acquiring field data, and verifying as-built conditions to assure accurate development of design and bidding documents, and production of necessary design and bidding documents. Consultants should indicate specific projects from past experience (including size, cost, and completion date) in their letter of interest and when known, include proposed consulting partners and specialty consultants.

The consultant will verify project scope and budget estimates, and recommend modifications as required to complete the specified project intent. The consultant will prepare a pre-design document to establish an appropriate project scope, budget, and schedule prior to the university seeking authority to construct from the Board of Regents and State Building Commission.

Commissioning

☒ Level 1

☐ Level 2

Project Budget

Construction Cost:		\$2,213,600
Haz Mats:		\$20,000
Construction Total:		\$2,233,600
Contingency:	15%	\$335,000
A/E Design Fees:	8%	\$178,700
DFD Mgmt Fees:	4%	\$102,700
Equipment/Other:		\$0
		<u>\$2,850,000</u>

Funding Source

GFSB - Facilities Maintenance & Renovation [Z060]	<u>\$2,850,000</u>
PRSB - []	\$0
Agency/Institution Cash []	\$0
Gifts	\$0
Grants	\$0
Building Trust Funds [BTF]	\$0
Other Funding Source	\$0
	<u>\$2,850,000</u>

Project Schedule

SBC Approval: 10/2013
A/E Selection: 05/2013
Bid Opening: 03/2014
Construction Start: 05/2014
Substantial Completion: 08/2015
Project Close Out: 12/2015

Project Contact

Contact Name: Michael Dauck
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Project Scope Consideration Checklist

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1. Will the building or area impacted by the project be occupied during construction? If yes, explain how the occupants will be accommodated during construction.

☒ ☐

All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities. Project work will be phased so at least one passenger elevator per building is in full

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operation at all times.

2. Is the project an extension of another authorized project? If so, provide the project #... ☐ ☒
3. Are hazardous materials involved? If yes, what materials are involved and how will they be handled? ☒ ☐
Required hazardous materials abatement (dumbwaiter fire doors) has been included in the estimated project schedule and project budget. Comprehensive building survey inventory data is available on Wisconsin's Asbestos & Lead Management System (WALMS) <<http://walms.doa.state.wi.us/>>.
4. Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent? ☐ ☒
5. Will the project impact the heating plant, primary electrical system, or utility capacities supplying the building? If yes, to what extent? ☐ ☒
6. Are other projects or work occurring within this project's work area? If yes, provide the project # and/or description of the other work in the project scope. ☐ ☒
7. Have you identified the WEPA designation of the project...Type I, Type II, or Type III? ☒ ☐
Type III.
8. Is the facility listed on a historic register (federal or state), or is the facility listed by the Wisconsin Historical Society as a building of potential historic significance? If yes, describe here. ☒ ☐
The Memorial Union is listed on the National Register of Historic Buildings as a contributing building in the Bascom Hill Historic District.
9. Are there any other issues affecting the cost or status of this project? ☐ ☒
10. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed solution. ☐ ☒
11. Will the project improve, decrease, or increase the function and costs of facilities operational and maintenance budget and the work load? If yes, to what extent? ☒ ☐
Completion of this project will decrease operational maintenance costs.
12. Are there known code or health and safety concerns? If yes, identify and indicate if the correction or compliance measure was included in the budget estimate, or indicate plans for correcting the issue(s). ☐ ☒

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13. Are there potential energy or water usages reduction grants, rebates, or incentives for which the project may qualify (i.e. Focus on Energy <<http://www.focusonenergy.com>> or the local utility provider)? If yes, describe here. ☐ ☒
14. If this is an energy project, indicate and describe the simple payback on state funding sources in years and the expected energy reduction here. ☐ ☒